PATENT
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPLICANT:	JOSEPH J. MASSAD
SERIAL NO.:	10/720,608
FILED:	NOVEMBER 24, 2003
FOR:	METHOD FOR DEVELOPING BALANCED OCCLUSION IN DENTISTRY
GROUP ART UNIT: 3732	
EXAMINER:	JOHN J. WILSON

APPELLANT'S APPEAL BRIEF

Mail Stop – Board of Patent
Appeals and Interferences
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant/Appellant, Joseph J. Massad, files this Appeal Brief pursuant to 37 CFR §41.37 in support of his appeal to the Board of Patent Appeals and Interferences.

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Date of Deposit: July 7, 2008
I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Tammy Horn

37 CFR §41.37(c)(1)(i)
Real Party In Interest

The real parties in interest are the Applicant/Appellant, Joseph J. Massad, and his assignee, Global Impression Dental Trays, Inc., an Oklahoma corporation.

37 CFR §41.37(c)(1)(ii)
Related Appeals and Interferences

There are no related appeals or interferences.

37 CFR §41.37(c)(1)(iii)
Status of the Claims

Claims 6 and 9-18 are pending in the present application and are appealed herein. Claim 6 is an independent claim relating to a special denture tooth for use in a removable dental prosthesis with Claims 10, 12 and 14 dependent therefrom. Claim 9 is an independent claim relating to a removable dental prosthesis with Claims 11, 13 and 15-18 dependent therefrom.

In summary, Claims 1-5, 7 and 8 have been canceled and Claims 6 and 9-18 are pending, rejected and on appeal. No claims are allowed.

37 CFR §41.37(c)(1)(iv)
Status of Amendments

Applicant/Appellant's original application included eight (8) claims. Following issuance of a restriction requirement in an Office Action dated May 24, 2006, Applicant elected Claim 6 drawn to a special tooth without prejudice to his rights, withdrew Claims 1-5 and 8 and added new independent Claim 9.

Thereafter, in an Office Action dated August 29, 2006, the Examiner modified the restriction requirement dated May 24, 2006, and acknowledged Applicant's election with traverse of Claims 6 and 9 filed June 22, 2006. Claim 6 was rejected under 35 U.S.C. §102(b) as being anticipated by Worthington (U.S. Patent No. 6,068,481) and Claim 9 was rejected under

35 U.S.C. §103(a) as being unpatentable over Worthington in view of Opotow (U.S. Patent No. 2,309,270). The drawings submitted with the original application were also objected to by the Examiner. In response, Applicant/Appellant filed an amendment dated November 29, 2006, attaching formal drawings, amending independent Claims 6 and 9 and adding new dependent Claims 10 and 11.

A final Office Action was issued on March 6, 2007. Claims 10 and 11 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Claim 6 was rejected under 35 U.S.C. §102(b) as being anticipated by Laszlo (IL 83447A, English Abstract from Derwent). Claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Laszlo in view of Opotow. Claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over Laszlo in view of Tanaka *et al.* (U.S. Patent No. 4,997,373), and Claim 11 was rejected under 35 U.S.C. §103(a) as being unpatentable over Laszlo in view of Opotow as applied to Claim 9, and further, in view of Tanaka *et al.* The Examiner's reliance on Worthington was dropped. The Examiner also objected to Applicant/Appellant's formal drawings.

Applicant/Appellant thereafter participated in a telephonic interview with the Examiner on May 24, 2007, and filed a Request for Continuing Examination (RCE) on June 6, 2007. In an amendment accompanying the RCE, Applicant/Appellant submitted substitute drawings and amended the Abstract. Applicant/Appellant also amended Claims 6 and 9-11 and added dependent Claims 12-18.

A further Office Action was thereafter issued on July 18, 2007 rejecting Claim 9 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant/Appellant regards as the invention. Claims

6, 10 and 12 were rejected under 35 U.S.C. §102(b) as being anticipated by Laszlo (U.S. Patent No. 4,608,020). Claims 9, 11, 13, 16 and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Opotow in view of Laszlo. Claim 14 was rejected under 35 U.S.C. §103(a) as being unpatentable over Laszlo in view of Faust, *et al.* (U.S. Patent. No. 3,826,002). Claim 15 was rejected under 35 U.S.C. §103(a) as being unpatentable over Opotow in view of Laszlo as applied to Claim 9 and further in view of Faust, *et al.*, and Claim 17 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Opotow in view of Laszlo as applied to Claim 9, and further in view of Luth (U.S. Patent No. 5,188,529). The Examiner's reliance on Laszlo (IL 83447A, English Abstract from Derwent) and Tanaka *et al.* (U.S. Patent No. 4,997,373) were dropped. In response, Applicant/Appellant filed an amendment dated October 16, 2007, amending Claims 6, 9 and 16.

A final rejection was thereafter issued on December 10, 2007, rejecting Claims 6, 10 and 12 under 35 U.S.C. §102(b) as being anticipated by Laszlo (U.S. Patent No. 4,608,020) and rejecting Claims 6, 10 and 12 under 35 U.S.C. §103(a) as being unpatentable over Laszlo. Claims 9, 11, 13, 16 and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Opotow in view of Laszlo. Claim 14 was rejected under 35 U.S.C. §103(a) as being unpatentable over Laszlo in view of Faust, *et al.* (U.S. Patent. No. 3,826,002). Claim 15 was rejected under 35 U.S.C. §103(a) as being unpatentable over Opotow in view of Laszlo as applied to Claim 9 and further in view of Faust, *et al.*, and Claim 17 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Opotow in view of Laszlo as applied to Claim 9, and further in view of Luth (U.S. Patent No. 5,188,529). In response, Applicant/Appellant filed an amendment dated February 29, 2008, canceling Claims 1-5, 7 and 8. An Advisory Action was issued on April 1, 2008, maintaining the Examiner's final rejections.

Applicant/Appellant subsequently filed a Notice of Appeal on April 7, 2008.

37 CFR §41.37(c)(1)(v)
Summary of the Claimed Subject Matter

The claimed invention is a special denture tooth and removable dental prosthesis used for custom molding occlusal surfaces of dentures. The special denture tooth has a central receptacle which may initially hold an occlusal insert for positioning the dentures while a central bearing device is adjusted. Once the occlusal insert is removed, the special denture tooth may hold moldable resin. The central receptacle and at least one undercut area hold the resin as it is molded by the opposing teeth moving through all possible eccentric positions, with the central bearing device preventing the teeth from closing too far. The resin is then cured and trimmed and the dentures are clinically fit to the patient before the central bearing device is removed from the dentures.

One aspect of the claimed invention, as recited in Claim 6, relates to a special denture tooth for use in a removable dental prosthesis having a special denture tooth for insertion into a removable dental prosthesis. The denture tooth is provided with sides and a bottom, which form a receptacle located centrally between the sides and atop the bottom. The denture tooth may be constructed of a synthetic resin. At least one undercut notch is provided in the receptacle to retain a resin, which fills the receptacle and the undercut notch to form the occlusal surface of the denture tooth. The contour of the occlusal surface conforms to and is molded by interaction with opposing teeth. A removable occlusal insert may also be provided and adapted to be inserted in the receptacle.

Another aspect of the claimed invention, as recited in Claim 9, relates to a removable dental prosthesis having a special denture tooth housing for insertion into the removable dental

prosthesis and a central bearing device removably attached by an adhesive material to the tooth housing. The tooth housing is provided with sides and a bottom forming a receptacle located centrally between the sides and above the bottom. In addition, the tooth housing includes at least one undercut notch on the sides of the receptacle. The central bearing device is receivable in a mouth of a patient to maintain a proper relative vertical spacing relationship between a maxillary and an opposing mandibular of the dental prosthesis through all eccentric movements such that the contour of an occlusal surface of the special tooth conforms to and is molded by interaction with opposing teeth of the patient.

An explanation of the subject matter defined in each of the claims on appeal referring to the specification and to the drawing or drawings follow:

	Claim	Specification
6.	A special denture tooth for use in a removable dental prosthesis, comprising:	
	a special denture tooth for insertion into a removable dental prosthesis,	Figures 2, 7-15, 17-20, 27B, and 45-58. Pg. 1, ln. 13-18; pg. 39, ln. 13-17; pg. 40, ln. 15-pg. 41, ln. 2; pg. 53, lns. 2-6; and pg. 65, ln. 1-pg. 67, ln. 8.
	said denture tooth provided with sides and a bottom forming a receptacle located centrally between the sides and atop the bottom,	Figures 2, 8, 10, 12-15, 17-20, 27B, 46B, 46D, 47B, 47D, 48B, 48D, 49B, 49D, 50B, 50D, 51B, 51D, 53A-53D, and 54B. Pg. 39, lns. 13-17; and pg. 41, lns. 3-5.
	at least one undercut notch in the receptacle to retain a resin filling the receptacle and the undercut notch to form the occlusal surface of the denture tooth,	Figures 2, 8, 10, 12-15, 17-20, 27B, 46B, 46D, 47B, 47D, 48B, 48D, 49B, 49D, 50B, 50D, 51B, 51D, 53A-53D, and 54B. Pg. 39, lns. 13-17; pg. 41, lns. 5-16; pg. 51, lns. 9-14; pg. 51, ln. 22-pg. 52, ln. 5; pg. 56, lns. 7-15; pg. 63, ln. 22-pg. 64, ln. 6; and pg. 65, ln. 17-pg. 66, ln. 4.

	the contour of said occlusal surface conforming to and having been molded by interaction with opposing teeth.	Figures 14-15, 17-18, 19D-19F, 20D-20F, 51-55, 57C-57-D, and 58. Pg. 41, lns. 5-16; pg. 44, lns. 3-6; pg. 49, ln. 20-pg. 50, ln. 2; pg. 51, lns. 9-14; pg. 51, ln. 20-pg. 52, ln. 5; pg. 53, lns. 2-6; pg. 55, ln. 17-pg. 57, ln. 7; pg. 60, ln. 16-pg. 61, ln. 19; pg. 63, ln. 8-pg. 64, ln. 19; pg. 67, lns. 9-20; and pg. 68, ln. 2-pg. 69, ln. 10.
10.	The special denture tooth as set forth in Claim 6 wherein said denture tooth is comprised of synthetic resin.	Pg. 1, lns. 14-16; and pg. 39, ln. 13-14.
12.	The special denture tooth as set forth in Claim 10 wherein said synthetic resin is an acrylic resin, a composite resin or a combination of acrylic and composite resin.	Pg. 1, lns. 14-16.
14.	The special denture tooth as set forth in Claim 6 further comprising a removable occlusal insert adapted to be inserted in the receptacle.	Figures 2, 7-10, 19A-19B, 20A-20B, 27B, 30C, 31, 45-49, 50A-50B, and 56A-56B. Pg. 1, lns. 13-14; pg. 1, ln. 18-pg. 2, ln. 4; pg. 39, ln. 13-17; pg. 40, lns. 16-19; pg. 41, lns. 5-6; pg. 41, ln. 19-pg. 42, ln. 17; pg. 51, ln. 7-14; pg. 55, lns. 8-16; and pg. 65, lns. 9-19.
	Claim	**Specification**
9.	A removable dental prosthesis, comprising:	
	a special denture tooth housing for insertion into the removable dental prosthesis,	Figures 2, 7-15, 17-20, 27B, and 45-58. Pg. 1, ln. 13-18; pg. 39, ln. 13-17; pg. 40, ln. 15-pg. 41, ln. 2; pg. 53, lns. 2-6; and pg. 65, ln. 1-pg. 67, ln. 8.
	said tooth housing provided with sides and a bottom forming a receptacle located centrally between the sides and above the bottom, and	Figures 2, 8, 10, 12-15, 17-20, 27B, 46B, 46D, 47B, 47D, 48B, 48D, 49B, 49D, 50B, 50D, 51B, 51D, 53A-53D, and 54B. Pg. 39, lns. 13-17; and pg. 41, lns. 3-5.

	at least one undercut notch on the sides of the receptacle in the tooth housing; and	Figures 2, 8, 10, 12-15, 17-20, 27B, 46B, 46D, 47B, 47D, 48B, 48D, 49B, 49D, 50B, 50D, 51B, 51D, 53A-53D, and 54B. Pg. 41, lns. 11-16.
	a central bearing device removably attached by an adhesive material to said tooth housing,	Figures 4-15, 22, 24, 26, 34, 36, 37A, and 45-58. Pg. 17, lns. 1-4; pg. 17, lns. 12-15; pg. 30, lns. 16-18; pg. 30, ln. 21-pg. 31, ln. 3; pg. 39, lns. 18-20; pg. 47, ln. 16-pg. 49, ln. 19; pg. 50, lns. 11-14; pg. 50, ln. 22-pg. 51, ln. 4; pg. 52, lns. 7-16; pg. 53, ln. 1-pg. 58, ln. 2; pg. 62, ln. 20-pg. 64, ln. 19; and pg. 68, ln. 9-pg. 69, ln. 7.
	said central bearing device receivable in a mouth of a patient to maintain a proper relative vertical spacing relationship between a maxillary and an opposing mandibular of said dental prosthesis through all eccentric movements such that the contour of an occlusal surface of said special tooth conforms to and is molded by interaction with opposing teeth of the patient.	Figures 4-15, 18, 21B, 22, 23B, 24, 25B, 26, 34, 36, and 45-58. Pg. 47, ln. 16-pg. 49, ln. 19; pg. 50, lns. 11-14; pg. 50, ln. 14-pg. 51, ln. 4; pg. 52, lns. 7-16; pg. 53, ln. 1-pg. 58, ln. 2; and pg. 62, ln. 20-pg. 64, ln. 19.
11.	The dental prosthesis as set forth in Clam 9 wherein said denture tooth housing is composed of synthetic resin.	Pg. 1, lns. 14-16; and pg. 39, ln. 13-14.
13.	The dental prosthesis as set forth in Claim 11 wherein said synthetic resin is an acrylic resin, a composite resin or a combination of acrylic and composite resin.	Pg. 1, lns. 14-16.
15.	The dental prosthesis as set forth in Claim 9 further comprising a removable occlusal insert adapted to be inserted in the receptacle.	Figures 2, 7-10, 19A-19B, 20A-20B, 27B, 30C, 31, 45-49, 50A-50B, and 56A-56B. Pg. 1, lns. 13-14; pg. 1, ln. 18-pg. 2, ln. 4; pg. 4, ln. 6-8; pg. 14, lns. 7-11; pg. 16, lns. 4-16; pg. 17, lns. 12-15; pg. 18, lns. 7-20; pg. 33, lns. 5-6; pg. 36, lns. 12-20; pg. 40, lns. 16-19; pg. 41, ln. 19-pg. 42, ln. 17; pg. 51, ln. 7-14; pg. 55, lns. 8-16; and pg. 65, lns. 9-19.

16.	The dental prosthesis as set forth in Claim 9 further comprising an initially formable resin filling the receptacle and the undercut notch which cures to a solid to form an occlusal surface of the special tooth.	Figures 14-15, 17-18, 19D-19F, 20D-20F, 51-55, 57C-57-D, and 58. Pg. 41, lns. 5-16; pg. 44, lns. 3-6; pg. 49, ln. 20-pg. 50, ln. 2; pg. 51, lns. 9-14; pg. 51, ln. 20-pg. 52, ln. 5; pg. 53, lns. 2-6; pg. 55, ln. 17-pg. 57, ln. 7; pg. 60, ln. 16-pg. 61, ln. 19; pg. 63, ln. 8-pg. 64, ln. 19; pg. 67, lns. 9-20; and pg. 68, ln. 2-pg. 69, ln. 10.
17.	The dental prosthesis as set forth in Claim 9 wherein said central bearing device further comprises:	
	a central bearing plate attachable to a central bearing plate assembly;	Figures 4-6, 10, 13-15, 22, 24, 34, 36, and 45-58. Pg. 39, lns. 17-20; pg. 47, ln. 21-pg. 48, ln. 15; pg. 50, ln. 22-pg. 51, ln. 4; pg. 51, lns. 14-17; pg. 53, ln. 10-pg. 55, ln. 16; pg. 62, ln. 21-pg. 64, ln. 19; and pg. 68, ln. 2-pg. 69, ln. 5.
	a central bearing pin adjustably attached to a central bearing pin bushing such that the central bearing pin contacts the central bearing plate; and	Figures 7-15, 26, 34, 36, and 45-58. Pg. 48, lns. 10-15; pg. 51, lns. 14-17; pg. 53, ln. 10-pg. 55, ln. 16; pg. 62, ln. 21-pg. 64, ln. 11; and pg. 68, lns. 2-17.
	a locking nut engaging the central bearing pin.	Figures 8-15, 49C, 49D, and 50-58. Pg. 4, lns. 5-6; and pg. 55, lns. 14-16.
18.	The dental prosthesis as set forth in Claim 9 wherein said adhesive material is an epoxy or resin.	Pg. 17, lns. 1-4; pg. 17, lns. 12-15; pg. 30, lns. 16-18; pg. 30, ln. 21-pg. 31, ln. 3; and pg. 53, ln. 19-pg. 54, ln. 10.

37 CFR §41.37(c)(1)(vi)
Grounds of Rejection

The grounds of rejection to be reviewed on appeal are as follows:

Are Claims 6, 10 and 12 unpatentable under 35 U.S.C. §102(b) as being anticipated by Laszlo (U.S. Patent No. 4,608,020)?

Are Claims 6, 10 and 12 unpatentable under 35 U.S.C. §103(a) as obvious over Laszlo (U.S. Patent No. 4,608,020)?

Is Claim 14 unpatentable under 35 U.S.C. §103(a) as obvious over the combination of Laszlo (U.S. Patent No. 4,608,020) and Faust, *et al.* (U.S. Patent No. 3,826,002)?

Are Claims 9, 11, 13, 16 and 18 unpatentable under 35 U.S.C. §103(a) as obvious over the combination of Opotow (U.S. Patent No. 2,309,270) and Laszlo (U.S. Patent No. 4,608,020)?

Is Claim 15 unpatentable under 35 U.S.C. §103(a) as obvious over the combination of Opotow (U.S. Patent No. 2,309, 270), Laszlo (U.S. Patent No. 4,608,020) and Faust, *et al.* (U.S. Patent No. 3,826,002)?

Is Claim 17 unpatentable under 35 U.S.C. §103(a) as obvious over the combination of Opotow (U.S. Patent No. 2,309,270), Laszlo (U.S. Patent No. 4,608,020) and Luth (U.S. Patent No. 5,188,529)?

37 CFR §41.37(c)(1)(vii)
Argument

Claims 6, 10 and 12 Are Not Unpatentable Under 35 U.S.C. § 102(b) As Being Anticipated By Laszlo (U.S. Patent No. 4,608,020)

Laszlo (U.S. Patent No. 4,608,020) does not anticipate the claimed inventions of Claims 6, 10 and 12.

Section 102(b) provides:

> A person shall be entitled to a patent unless - (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The Examiner argued in his Advisory Action dated April 1, 2008, and most recent Office Action dated December 10, 2007, that all the elements of Claims 6, 10 and 12 may be found in Laszlo.

However, this is incorrect for a number of reasons. Laszlo does not disclose the special denture tooth of the claimed invention "provided with sides and a bottom forming a receptacle. . ." (Claim 6, ln. 4). Further, Laszlo does not disclose the special denture tooth of the claimed invention having "at least one undercut notch in the receptacle to retain a resin filling the receptacle." (Claim 6, ln. 5). Additionally, the Laszlo denture tooth lacks the element or limitation of Claim 6 wherein the resin filling the receptacle forms the occlusal surface of the denture tooth with "the contour of the occlusal surface conforming to and having been molded by interaction with opposing teeth." (Claim 6, lns. 6-7).

The Laszlo Denture Tooth Has No Bottom

The Examiner argued in the Advisory Action and the Office Action that Laszlo discloses a denture tooth having a bottom; in particularly, the Examiner states on page 2 of the Office Action that "Laszlo teaches a tooth 4 provided with sides at 31 and bottom as shown at the bottom of hollowed out portion 30, Figs. 2 and 3..." However, as can be seen in Figures 2 and 3 of Laszlo, the portion with reference numeral 1 relied on by the Examiner as a bottom is repeatedly referred to as a "base plate 1 of wax." (Col. 3, ln. 16). Laszlo provides a tooth that is "hollowed-out 30, leaving a relatively thin wall 31." (Col. 3, lns. 22-23). The base wax 1 does not form a part of the denture tooth as in the claimed invention and is simply an intermediate step and element in order to embed the tubular hollowed teeth forms therein. (Col. 3, lns. 15-19). In the case of Laszlo, the base wax is used as a casting pattern in order to make a mold and is not part of the tooth itself. Stated in other words, the tooth of Laszlo is a hollow cylinder with no bottom. In contrast, in the claimed invention, the tooth itself includes sidewalls and a bottom, which together form a receptacle. The structure and arrangement of elements of the claimed invention result in a special denture tooth that can be utilized without the further interim steps of

inserting wax, producing a mold from the wax, and producing a tooth thereafter. Accordingly, Laszlo does not anticipate the denture tooth having a bottom specifically claimed in independent Claim 6.

The Laszlo Tooth Does Not Have An Undercut Notch

In addition, the Examiner argued in the Advisory Action and the Office Action that Laszlo shows in Figures 2 through 4, walls 31 having an inverse hourglass shape, which inherently form an undercut notch. Applicant/Appellant's special denture tooth is directed to a denture tooth having sides and a bottom forming a receptacle located centrally between the sides and atop the bottom. The receptacle of the claimed invention is provided with at least one undercut notch so that when the resin is placed in the receptacle, the resin will fill the undercut notch and, upon hardening, the resin will be more securely retained in the receptacle of the special denture tooth. Independent Claim 6 of the claimed invention positively sets forth the limitation of "at least one undercut notch in the receptacle to retain a resin filling the receptacle..." The hollowed out hourglass contour relied on by the Examiner does not result in sidewalls with either an undercut or a notch. The undercut notch in the sides of the receptacle of the claimed special tooth should be interpreted as a V-shaped indention, slit or cut away across a surface of the sides of the receptacle, which is clearly distinguishable and absent from the hourglass contour of the hollow denture tooth of Laszlo. Accordingly, Laszlo does not anticipate the denture tooth having a receptacle formed from sides and a bottom, with at least one undercut notch in the receptacle as specifically claimed in independent Claim 6.

The Laszlo Tooth Does Not Have Resin Molded By Interaction With Opposing Teeth

Furthermore, in Lazlo, the hollowed out denture tooth is embedded in a wax base plate. The hollow denture tooth is then filled with wax, after which a known articulator is used to open

and close to simulate the masticating motion of a patient's jaws. This serves to remove superfluous wax from the top of the denture teeth. The dentures are then placed in the mouth of the patient so that the chewing movements of the patient remove an additional quantity of wax. The wax denture is then removed from the patient's mouth and placed in a mold, which is heated to melt and remove the wax. (Col. 3, lns. 19-68). In contrast, the receptacle and the undercut notch of the special tooth of the claimed invention are filled with a resin to form the occlusal surface of the denture tooth, with "the contour of [the] occlusal surface conforming to and having been molded by interaction with opposing teeth." (Claim 6, lns. 5-7). Accordingly, Laszlo does not anticipate the denture tooth having a receptacle and an undercut notch filled with a resin to form an occlusal surface that conforms to and is molded by interaction with opposing teeth of the patient as specifically claimed in independent Claim 6.

Claims 10 and 14 are dependent on Claim 6 and are believed allowable for all the same reasons. In view of the foregoing, independent Claim 6 patentably defines the claimed invention over Laszlo, and dependent Claims 10 and 14 should also be allowable for the same reasons as their base Claim 6 and further due to the additional features that they recite.

Claims 6, 10 and 12 Are Not Unpatentable Under 35 U.S.C. § 103(a) As Being Obvious Over Laszlo (U.S. Patent No. 4,608,020)

Laszlo (U.S. Patent No. 4,608,020) does not render the claimed inventions of Claims 6, 10 and 12 obvious.

Section 103(a) provides:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was

made.

The Examiner, in the most recent substantive Office Action dated December 10, 2007, and as fully outlined above, mischaracterizes the teachings of Laszlo.

> Laszlo teaches a tooth 4 provided with sides at 31 and bottom as shown at the bottom of hollowed out portion 30, Figs. 2 and 3, and a resin filling, column 2, lines 39-42, which forms an occlusal surface. Laszlo shows in the figures that the side walls 31 that have an inverse hour glass shape, the expanded bottom the shown walls inherently provides an undercut. In view of the new terminology, "notch", the specific shape of the undercut is an obvious matter of choice in the shape of a known structure to one of ordinary skill in the art.

For any and all of these reasons discussed above, the features and limitations of independent Claim 6 cannot reasonable be said to be present in Laszlo. As such, the failure of Laszlo to teach or suggest each and every feature of Claim 6 is fatal to the Examiner's obviousness rejection under 35 U.S.C. § 103.

Laszlo must also teach or suggest *each and every claim feature*. *See In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974) (emphasis added) (to establish *prima facie* obviousness of a claimed invention, all the claim features must be taught or suggested by the prior art). Indeed, as the Board of Patent Appeal and Interferences recently confirmed, a proper obviousness determination requires that an Examiner make "a searching comparison of the claimed invention – *including all its limitations* – with the teaching of the prior art." *See In re Wada and Murphy*, Appeal 2007-3733, *citing In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995) (emphasis in original). Further, the necessary presence of all claim features is axiomatic, since the Supreme Court has long held that obviousness is a question of law based on underlying factual inquiries, including ... ascertaining the differences between *the claimed invention* and the prior art. *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966) (emphasis added). Moreover, as the Supreme Court recently stated, "there must be some articulated reasoning with

some rational underpinning to support the legal conclusion of obviousness." *KSR Int'l v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) (*quoting In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Thus, it is well-settled law that obviousness requires at least a suggestion of all of the features in a claim. *See In re Wada and Murphy* (*citing CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) and *In re Royka*, 490 F.2d, at 985).

As fully set forth above with respect to the Examiner's rejection of Claim 6 under 35 U.S.C. § 102(b), the claimed invention is directed to and includes the limitations of a denture tooth having sides and a bottom forming a receptacle, at least one undercut notch in the receptacle to retain a resin filling the receptacle and the undercut notch to form the occlusal surface of the denture tooth, and the contour of the occlusal surface conforming to and having been molded by interaction with opposing teeth. In contrast, Laszlo does not teach or suggest a tooth bottom, an undercut notch, nor an occlusal surface molded by interaction with opposing teeth, as required by the claimed invention. Thus, Laszlo does not teach or suggest each and every limitation positively recited in Claim 6 of the claimed invention.

Claim 14 Is Not Unpatentable Under 35 U.S.C. § 103(a) As Being Obvious Over The Combination Of Laszlo (U.S. Patent No. 4,608,020) and Faust, *et al.* (U.S. Patent No. 3,826,002)

Claim 14 is dependent on Claim 6, including all the limitations thereof, and is believed allowable for the same reasons set forth above.

Claims 9, 11, 13, 16 and 18 Are Not Unpatentable Under 35 U.S.C. §103(a) As Obvious Over The Combination Of Opotow (U.S. Patent No. 2,309,270) And Laszlo (U.S. Patent No. 4,608,020)

The asserted combination of Opotow (U.S. Patent No. 2,309,270) and Laszlo (U.S. Patent No. 4,608,020), taken together, does not achieve the limitations of independent Claim 9. Claim 9 provides a removable dental prosthesis comprising a special denture tooth housing having sides

and a bottom forming a receptacle located centrally between the sides and above the bottom and at least one undercut notch on the sides of the receptacle in the tooth housing. Claim 9 also includes a central bearing device removably attached using an adhesive material to the tooth housing. The central bearing device of the claimed invention maintains a proper relative vertical spacing relationship between a maxillary and an opposing mandibular of the dental prosthesis through all eccentric movements. The central bearing device also allows the contour of the occlusal surface of the denture tooth to conform to and be molded by the interaction with the patient's opposing teeth.

As fully discussed above with regard to independent Claim 6, the denture tooth of Laszlo is completely hollowed out leaving only a relatively thin outer wall. Laszlo does not teach or suggest the denture tooth having a bottom, but is rather embedded in a wax base plate. Further, Laszlo does not teach or suggest at least one undercut notch (*i.e.,* a V-shaped cut or incision across a surface of the sides of the receptacle) to help retain the resin upon hardening.

While Opotow may suggest a central bearing device, Opotow does not include a denture tooth housing with a receptacle, as admitted by the Examiner (December 10, 2007 Office Action at page 3) and thus relies on Laszlo to cure Opotow's deficiency. However, as fully discussed herein, Laszlo does not include each and every limitation of Claim 9, and thus, the Examiner has failed to establish *prima facie* obviousness of the claimed invention is view of the combination of Opotow and Laszlo.

Since Laszlo uses wax to be inserted in the hollow tubular form 4 and Opotow does not include a denture tooth housing with a receptacle, the combination is ineffective in contour molding of a denture tooth's occlusal surface, as positively recited in independent Claim 9. Accordingly, combining Laszlo with Opotow would not result in a workable device, and thus,

would not be obvious to one skilled in the art.

Moreover, it is untenable to combine Opotow with Laszlo. The only rationale set forth by the Examiner is as follows: "It would be obvious to one of ordinary skill in the art to modify Opotow to include a tooth housing as shown by Laszlo in order to better obtain the desired occlusion by an art known alternative method." (December 10, 2007 Office Action at page. 3). According to the USPTO's Examination Guidelines for Determining Obviousness Under 35 U.S.C. § 103 in view of the Supreme Court Decision in *KSR Int'l v. Teleflex Inc.*, found at 72 Fed. Reg. 57,526, 57,528-57,529,

> The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting In re Kahn stated that "'**[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.**'"

(Emphasis added). One such rationale is based on the TSM test. *Id.* at 57,529. Another is "[c]ombining prior art elements according to known methods to yield predictable results." *Id.* The Examiner's reasoning is a mere conclusory statement, and the Examiner provides no articulated reasoning with rational underpinnings supporting the legal conclusion of obviousness. In particular, the Examiner failed to resolve any of the *Graham* factual inquiries.

In *KSR*, the Supreme Court stated, "it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." In relying on *KSR*, the Examination Guidelines state, "[i]f any of these findings [from the *Graham* factual inquiries] cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art." *Id.* at 57,529. A comprehensive response to the Examiner's factual findings is not

possible, as the Examiner failed to include such factual findings, based on the *Graham* factual inquiries, in the Office Action. In summary, the Examiner has failed to state a *prima facie* case for the combination of the two disparate references, Opotow and Laszlo.

Claims 11, 13, 16 and 18 are dependent on Claim 9 and believed allowable for all of the same reasons. In view of the foregoing, independent Claim 9 patentably defines the claimed invention over the combination of Opotow and Laszlo, and dependent Claims 11, 13, 16 and 18 should also be allowable for the same reasons as their base Claim 9 and further due to the additional features that they recite.

Claim 15 Is Not Unpatentable Under 35 U.S.C. §103(a) As Obvious Over The Combination Of Opotow (U.S. Patent No. 2,309, 270), Laszlo (U.S. Patent No. 4,608,020) and Faust, *et al.* (U.S. Patent No. 3,826,002)

Claim 15 is dependent on Claim 9, including all the limitations thereof, and is believed allowable for the same reasons set forth above.

Claim 17 Is Not Unpatentable Under 35 U.S.C. §103(a) As Obvious Over The Combination Of Opotow (U.S. Patent No. 2,309,270), Laszlo (U.S. Patent No. 4,608,020) and Luth (U.S. Patent No. 5,188,529)

Claim 17 is dependent on Claim 9, including all the limitations thereof, and is believed allowable for the same reasons set forth above.

37 CFR §41.37(c)(1)(viii)
Claims Appendix

An appendix containing a copy of the claims is submitted herewith.

37 CFR §41.37(c)(1)(x)
Related Proceedings Appendix

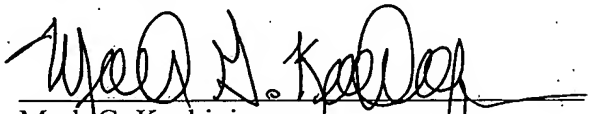
There are no related proceedings.

Summary

For all the foregoing reasons, it is believed that the present rejection should be lifted and that the application should proceed to allowance.

Pursuant to 37 CFR §1.117(f), the $250 fee for filing the brief has been submitted. The Commissioner is hereby authorized to charge any additional fees which may be required by this paper to Deposit Account No. 08-1500. This brief is being transmitted in triplicate pursuant to the regulations.

Respectfully submitted,



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APPENDIX

1. (Canceled)

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Previously Presented) A special denture tooth for use in a removable dental prosthesis, comprising:

a special denture tooth for insertion into a removable dental prosthesis, said denture tooth provided with sides and a bottom forming a receptacle located centrally between the sides and atop the bottom, at least one undercut notch in the receptacle to retain a resin filling the receptacle and the undercut notch to form the occlusal surface of the denture tooth, the contour of said occlusal surface conforming to and having been molded by interaction with opposing teeth.

7. (Canceled)

8. (Canceled)

9. (Previously Presented) A removable dental prosthesis, comprising:

a special denture tooth housing for insertion into the removable dental prosthesis, said tooth housing provided with sides and a bottom forming a receptacle located centrally between the sides and above the bottom, and at least one undercut notch on the sides of the receptacle in the tooth housing; and

a central bearing device removably attached by an adhesive material to said tooth housing, said central bearing device receivable in a mouth of a patient to maintain a proper relative vertical spacing relationship between a maxillary and an opposing mandibular of said dental prosthesis through all eccentric movements such that the contour of an occlusal surface of said special tooth conforms to and is molded by interaction with opposing teeth of the patient.

10. (Previously Presented) The special denture tooth as set forth in Claim 6 wherein said denture tooth is comprised of synthetic resin.

11. (Previously Presented) The dental prosthesis as set forth in Clam 9 wherein said denture tooth housing is composed of synthetic resin.

12. (Previously Presented) The special denture tooth as set forth in Claim 10 wherein said synthetic resin is an acrylic resin, a composite resin or a combination of acrylic and composite resin.

13. (Previously Presented) The dental prosthesis as set forth in Claim 11 wherein said synthetic resin is an acrylic resin, a composite resin or a combination of acrylic and composite resin.

14. (Previously Presented) The special denture tooth as set forth in Claim 6 further comprising a removable occlusal insert adapted to be inserted in the receptacle.

15. (Previously Presented) The dental prosthesis as set forth in Claim 9 further comprising a removable occlusal insert adapted to be inserted in the receptacle.

16. (Previously Presented) The dental prosthesis as set forth in Claim 9 further comprising an initially formable resin filling the receptacle and the undercut notch which cures to a solid to form an occlusal surface of the special tooth.

17. (Previously Presented) The dental prosthesis as set forth in Claim 9 wherein said central bearing device further comprises:

a central bearing plate attachable to a central bearing plate assembly;

a central bearing pin adjustably attached to a central bearing pin bushing such that the central bearing pin contacts the central bearing plate; and

a locking nut engaging the central bearing pin.

18. (Previously Presented) The dental prosthesis as set forth in Claim 9 wherein said adhesive material is an epoxy or resin.